CLAIMS

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1. A tris(sec-butylcyclopentadienyl) complex of a rare earth metal represented by general formula (I):

$$M \longrightarrow \int_3$$
 (1)

wherein M represents a rare earth metal atom.

- 2. The tris(sec-butylcyclopentadienyl) complex according to claim 1, wherein M is yttrium.
- 3. The tris(sec-butyleyclopentadienyl) complex according to claim 1, wherein M is lanthanum.
- 10 4. The tris(sec-butylcyclopentadienyl) complex according to claim 1, wherein M is praseodymium.
 - 5. The tris(sec-butylcyclopentadienyl) complex according to claim 1, wherein M is erbium.
- 6. A material for thin film formation comprising the tris(secbutylcyclopentadienyl) complex according to any one of claims 1 to 5.
 - 7. A process of forming a thin film, comprising vaporizing the material for thin film formation according to claim 6, introducing the resulting vapor containing the tris(sec-butylcyclopentadienyl) complex onto a substrate, and causing the tris(sec-butylcyclopentadienyl) complex to decompose and/or chemically react to form a rare earth metal-containing thin film on the substrate.